Index of Authors

Note. Entries marked with an asterisk (*) refer to communications made in title only.
Entries marked with a section mark (§) refer to contributions to Symposia.
Small roman numerals refer to pages in *Proceedings of the Biochemical Society.*

Abul-Fadl, M. A. M. & King, E. J. Inhibition of acid phosphatases by formaldehyde xxxii
Albert, A. & Gledhill, W. S. The choice of a chelating agent for inactivating trace metals. 1. A survey of commercially available chelating agents 529
Albert, A. & Magrath, D. The choice of a chelating agent for inactivating trace metals. 2. Derivatives of oxine (8-hydroxyquinoline) 534
Archer, H. E., Chapman, L., Rhoden, E. & Warren, F. L. The estimation of urethane (ethylcarbamate) in blood xxxi

Bailey, K. & Perry, S. V. The role of SH groups in the myosin-actin interaction xxii
*Baker, F. & Harriss, S. T. Bacterial decomposition of cellulose in the rumen xlvi
Baker, R. W. R. Studies on the reaction between sodium hypochlorite and proteins. 1. Physico-chemical study of the course of the reaction 337
Ball, S., Glover, J., Goodwin, T. W. & Morton, R. A. Conversion of retinene$_1$ to vitamin A *in vivo* xxiv
Barclay, J. A. & Kenney, R. A. A method for the estimation of creatinine 586
Barrett, A. M. Histological observations. *Appendix to* Metabolic processes in the gastric mucosa (Lutwak-Mann, C.) 29
Barrett, A. M. *see also* Needham, D. M. 631
Barron, E. S. G. & Kalnitsky, G. The inhibition of succinoxidase by heavy metals and its reactivation with dithiols 346
Barron, E. S. G., Miller, Z. B., Bartlett, G. R., Meyer, J. & Singer, T. P. Reactivation by dithiols of enzymes inhibited by lewisite 69
Barron, E. S. G., Miller, Z. B. & Kalnitsky, G. The oxidation of dithiols 62
Barron, E. S. G., Miller, Z. B. & Meyer, J. The effect of 2:3-dimercaptopropanol on the activity of enzymes and on the metabolism of tissues 78
Bartlett, G. R. *see* Barron, E. S. G. 69
Bartley, W. C. *see* Krebs, H. A. 622
Bender, A. E. & Wilson, A. An investigation into the chemical estimation of the oestrogens in urine 423
§Bergel, F. Pharmacological properties of *l*- and *d*-amino-acids and derivatives xxxvi
Bergel, F. *see also* Rinderknecht, H. 463
Best, C. H. *see* McArthur, C. S. 612
Bilen, M. *see* Haurowitz, F. 304
Bisset, N. G., Brooksbank, B. W. L. & Haslewood, G. A. D. Estimation of 'pregnanediol-like glucuronide' in human urine xxxviii
*Bisset, N. G., Brooksbank, B. W. L. & Haslewood, G. A. D. Estimation of 'pregnanediol-like glucuronide' in human urine xlii
Blewett, M. *see* Fraenkel, G. 469
Blewett, M. *see* Fraenkel, G. 475
Blewett, M. *see* Fraenkel, G. xviii
Bonner, J. *see* Li, L. P. 105
Booth, J. & Boyland, E. Metabolism of naphthalene xxix
Borell, U. & Örström, Å. The turnover of phosphate in the pineal body compared with that in other parts of the brain 398
Boyland, E. *see* Booth, J. xxix
Bracken, A. & Raistrick, H. Studies in the biochemistry of micro-organisms. 75. Dehydrocarolic acid, a metabolic product of *Penicillium cinerascens* Biourge 569
Bray, H. G., James, S. P., Ryman, B. E. & Thorpe, W. V. Hydrolysis of amides by liver extracts lii
Bray, H. G., Lake, H. J., Neale, F. C., Thorpe, W. V. & Wood, P. B. Metabolism of aminobenzoic acids and their amides liii
Bray, H. G., Ryman, B. E. & Thorpe, W. V. The fate of certain organic acids and amides in the rabbit. 2. *p*-Hydroxybenzoic acid and its amide 212
Brooksbank, B. W. L. *see* Bisset, N. G. xxxviii
*Brooksbank, B. W. L. *see also* Bisset, N. G. xlii
Bunn, D. Semi-continuous electrophoretic separation of proteins xxiv
Bunn, D. *see also* Maclagan, N. F. 580
Bunn, D. *see also* Maclagan, N. F. xix
Burgen, A. S. V. & Lorch, J. I. The action of alloxan and related compounds on alkaline phosphatase 223
Burris, R. H. *see* Powelson, D. M. 486
Butler, J. A. V., Dodds, E. C., Phillips, D. M. P. & Stephen, J. M. L. The action of proteolytic enzymes on insulin xxiii
Butler, J. A. V., Dodds, E. C., Phillips, D. M. P. & Stephen, J. M. L. The plastein question xxxvii

Calam, C. T., Clutterbuck, P. W., Oxford, A. E. & Raistrick, H. Studies in the biochemistry of micro-organisms. 74. The molecular constitution of geodin and erdin, two chlorine-containing metabolic products of *Aspergillus terreus* Thom. Part 3. Possible structural formulae for geodin and erdin 458
Callow, R. K., Glover, R. E. & Habt, P. D'A. Licheniformin, the antibiotic material from *Bacillus licheniformis*; concentration and some chemical and biological properties xxvii
Campbell, P. N. & Davson, H. Absorption of 3-methylglucose from the small intestine of the rat and cat xl
Challenger, F. & Simpson, M. I. A precursor of the dimethyl sulphide evolved by *Polysiphonia fastigiata*. Dimethyl-β-propiothetine (dimethyl-β-carboxyethylsulphonium hydroxide) and its salts xl
*Challenger, F. & Simpson, M. I. (A) Some reactions of thetine. (B) Evolution of dimethyl sulphide from seaweed xlii
Chance, A. C. *see* Graham, A. F. 352
Chapman, L. *see* Archer, H. E. xxxi
Chattaway, F. W. The estimation of histidine in urine and its excretion by normal and pregnant women 226
§Chibnall, A. C. Introductory talk on nomenclature of amino-acids xxxiv
Chu, C. M. *see* Elford, W. J. xxv
Clutterbuck, P. W. *see* Calam, C. T. 458
Cohen, J. A. *see* Needham, D. M. 631
Collie, C. H. *see* Peters, R. A. 370
Consden, R., Gordon, A. H. & Martin, A. J. P. The identification of lower peptides in complex mixtures 590
Consden, R., Gordon, A. H., Martin, A. J. P. & Synge, R. L. M. Gramicidin S: the sequence of the amino-acid residues 596

COOK, H. G. & SAUNDERS, B. C. 1:2:4-Fluorodinitrobenzene 558
COXON, R. V., LATNER, A. L. & KING, E. J. The estimation of miracil in urine xxx
*COXON, R. V. *see also* LATNER, A. L. xxxiv
CRAWFORD, T. B. B. The quantitative separation on the microscale of phenylarsenious acid, phenylarsonic acid, arsenious acid and arsenic acid in simple solution and in urine 129
CRAWFORD, T. B. B. & LEVVY, G. A. Changes undergone by phenylarsenious acid and phenylarsonic acid in the animal body 333
CRUIKSHANK, E. M. *see* MAPSON, L. W. 197

DAMODARAN, M. *see* YESHODA, K. M. 382
DANIELLI, J. F., DANIELLI, M., FRASER, J. B., MITCHELL, P. D., OWEN, L. N. & SHAW, G. BAL-INTRAV: A new non-toxic thiol for intravenous injection in arsenical poisoning 325
DANIELLI, M. *see* DANIELLI, J. F. 325
*DARKE, S. J. & JACOBY, F. Experimental set-up for testing synthetic media on cells in tissue culture liv
DAVIDSON, J. N., LESLIE, I. & WHITE, J. C. The distribution of nucleic acids in bone marrow cells xxvi
*DAVIDSON, J. N., LESLIE, I. & WHITE, J. C. The histological appearances of bone marrow in relation to the nucleic acids xxxii
DAVSON, H. *see* CAMPBELL, P. N. xl
DAWES, E. A., DAWSON, J. & HAPPOLD, F. C. The tryptophanase-tryptophan reaction. 8. The mode of formation of indole 426
DAWES, E. A., DAWSON, J. & HAPPOLD, F. C. The nature of the tryptophanase complex xlviii
DAWSON, J. & DOLBY, D. E. The effect of calciferol on serum calcium and its relation to abnormal calcification xlvii
DAWSON, J. *see also* DAWES, E. A. 426
DAWSON. J. *see also* DAWES, E. A. xlviii
DENT, C. E. The amino-aciduria in Fanconi syndrome. A study making extensive use of techniques based on paper partition chromatography 240
DENT, C. E. The cystine and methionine contents of liver protein in acute hepatic necrosis 314
DENT, C. E. & RIMINGTON, C. Porphyrinuria in rats fed oxidized casein: a preliminary communication 253
DIRNHUBER, P. & SCHÜTZ, F. Distillation of cyanic acid as evidence for the presence of cyanate in red cells liv
DODDS, E. C. *see* BUTLER, J. A. V. xxiii
DODDS, E. C. *see also* BUTLER, J. A. V. xxxvii
DODGSON, K. S., GARTON, G. A. & WILLIAMS, R. T. The metabolism of synthetic oestrogens (stilboestrol, dienoestrol and hexoestrol) in the rabbit xlix
DODGSON, K. S., GARTON, G. A. & WILLIAMS, R. T. The conjugation of *d*-adrenaline and certain catechol derivatives in the rabbit 1 *Proc.*
DOLBY, D. E. *see* DAWSON, J. xlvii
DUDGEON, J. A. *see* ELFORD, W. J. xxv

EDSON, N. L. The oxidation of lactic acid by *Mycobacterium phlei* 145
EDSON, N. L. & HUNTER, G. J. E. The respiration of *Mycobacterium phlei* 139
ELFORD, W. J., SMILES, J., CHU, C. M. & DUDGEON, J. A. Electron micrographs of *Staphylococcus* bacteriophage 'K' and the viruses of vaccinia and Newcastle disease xxv
ELLINGER, P. The fate of nicotinamide methochloride and the effect of liver poisons on its elimination rate in the rat 308
ELLINGER, P. The fate of nicotinamide methochloride in the rat xix
ELLINGER, P., FRAENKEL, G. & KADER, M. M. A. The utilization of nicotinamide derivatives and related compounds by mammals, insects and bacteria 559
ELSON, L. A. The effect of diet on the succinoxidase of rat and mouse livers, and on its inhibition by metabolic products of carcinogenic azo compounds xxi
EMMENS, C. W. *see* SWYER, G. I. M. 29
EVANS, W. C. Oxidation of phenol and benzoic acid by some soil bacteria 373
EYLENBURG, E. *see* WALKER, S. E. 575

FARRER, K. T. H. The thermal destruction of vitamin B_1. 3. The influence of copper on the rate of destruction of aneurin in buffer solutions at 100° 162
FARRER, K. T. H. The thermal destruction of vitamin B_1. 4. The influence of the concentration of buffer salts on the rate of destruction of aneurin at 100° 167
*FINEAN, J. B. *see* SAMMONS, H. G. liii
§FINNEY, D. J. Statistical aspects of microbiological assays v
FOLLEY, S. J. & GREENBAUM, A. L. Changes in the arginase and alkaline phosphatase contents of the mammary gland and liver of the rat during pregnancy, lactation and mammary involution 261
FORSYTH, W. G. C. Studies on the more soluble complexes of soil organic matter. 1. A method of fractionation 176
FRAENKEL, G. & BLEWETT, M. The importance of folic acid and unidentified members of the vitamin B complex in the nutrition of certain insects 469
FRAENKEL, G. & BLEWETT, M. Linoleic acid and arachidonic acid in the metabolism of two insects, *Ephestia kuehniella* (Lep.) and *Tenebrio molitor* (Col.) 475
FRAENKEL, G. & BLEWETT, M. Folic acid and the growth of insects xviii
FRAENKEL, G. & BLEWETT, M. The effect of linoleic acid and arachidonic acid on the development of the flour moth, *Ephestia kuehniella* xviii
FRAENKEL, G. *see also* ELLINGER, P. 559
FRASER, J. B. *see* DANIELLI, J. F. 325
*FRAZER, A. C., FRENCH, J. M. & SAGROTT, P. E. The mechanism of fat absorption in the rat liii
FREELAND, J. C. & GALE, E. F. The amino-acid composition of certain bacteria and yeasts 135
FREEMAN, G. G. The fermentation of sucrose by *Aerobacter aerogenes* 389
*FRENCH, J. M. *see* FRAZER, A. C. liii
FULLER, A. T. Antibacterial action of some aromatic amines, amidines, amidoximes, guanidines and diguanides 403
FULLER, A. T., NEUBERGER, A. & WEBSTER, T. A. Histidine deficiency in the rat and its effect on the carnosine and anserine content of muscle 11
FULTON, J. D. *see* RIMINGTON, C. 619

§GALE, E. F. The use of enzyme preparations from bacteria for the estimation of amino-acids vii
GALE, E. F. *see also* FREELAND, J. C. 135
GARTON, G. A. *see* DODGSON, K. S. xlix
GARTON, G. A. *see also* DODGSON, K. S. 1 *Proc.*
GIBSON, Q. H. A note on the calibration of Barcroft differential manometers 44
GIBSON, Q. H. & LONG, C. Pyruvate oxidation in ox heart 230
GLAZEBROOK, A. J., SCARBOROUGH, H. & WOKES, F. Clinical assay of vitamin P. III. Seasonal variations in the vitamin C and vitamin P content of the experimental diet xxv
GLEDHILL, W. S. *see* ALBERT, A. 529
GLOVER, J., GOODWIN, T. W. & MORTON, R. A. Studies in vitamin A. 1. A chromatographic method for separating free and esterified vitamin A 94

GLOVER, J., GOODWIN, T. W. & MORTON, R. A. Studies in vitamin A. 2. The relationship between blood vitamin A levels and liver stores in rats 97
GLOVER, J., GOODWIN, T. W. & MORTON, R. A. Conversion of β-carotene into vitamin A in the intestine of the rat xlv
GLOVER, J. *see also* BALL, S. xxiv
GLOVER, R. E. *see* CALLOW, R. K. xxvii
GOODWIN, T. W. *see* BALL, S. xxiv
GOODWIN, T. W. *see also* GLOVER, J. 94
GOODWIN, T. W. *see also* GLOVER, J. 97
GOODWIN, T. W. *see also* GLOVER, J. xlv
GORDON, A. H. *see* CONSDEN, R. 590
GORDON, A. H. *see also* CONSDEN, R. 596
GOTTSCHALK, A. The effect of temperature on the fermentation of *d*-mannose by yeast 276
GOTTSCHALK, A. Further observations on the non-fermentability of *d*-fructopyranose by yeast 478
GOULD, J. C. & KING, H. K. The 'virulence-enhancement' factor of gastric mucin xxi
GRACE, M. A. *see* PETERS, R. A. 370
GRAHAM, A. F., LEVVY, G. A. & CHANCE, A. C. The fate of arsenical vesicants in the skin and the effect of BAL (British anti-lewisite) 352
GRAY, C. H. & WHIDBORNE, J. Further studies of the van den Bergh reaction 155
GREENBAUM, A. L. *see* FOLLEY, S. J. 261

HACK, M. H. The ultraviolet absorption spectrum of human cerebrospinal fluid 522
HALBERSTAEDTER, L. & LEIBOWITZ, J. Haemolysis and fixation of erythrocytes by X-rays 235
HALL, D. A. The folic acid group of growth factors. 1. The complexity of growth factors for *Streptococcus lactis* R 287
HALL, D. A. The folic acid group of growth factors. 2. The effect of folic acid on acid production by growing cultures of *Streptococcus lactis* R 294
HALL, D. A. The folic acid group of growth factors. 3. Histidine and its relationship to 'folic acid' 299
HAPPOLD, F. C. *see* DAWES, E. A. 426
HAPPOLD, F. C. *see also* DAWES, E. A. xlviii
*HARRISS, S. T. *see* BAKER, F. xlvi
HART, P. D'A. & HILLS, G. M. A simple medium for production of antibiotic by *Bacillus licheniformis* xxvii
HART, P. D'A. *see also* CALLOW, R. K. xxvii
HARTLES, R. L. & WILLIAMS, R. T. The metabolism of sulphonamides. 4. The relation of the metabolic fate of ambamide (marfanil) and V 335 to their lack of systemic antibacterial activity 206
HARTLES, R. L. & WILLIAMS, R. T. The fate of *p*-hydroxybenzylamine and some related compounds in the rabbit li
HARTREE, E. F. *see* KEILIN, D. 500
HARTREE, E. F. *see also* KEILIN, D. 503
HASLEWOOD, G. A. D. Precipitation of steroid ketones with digitonin 639
HASLEWOOD, G. A. D. Digitonides of steroid ketones xli
HASLEWOOD, G. A. D. *see also* BISSET, N. G. xxxviii
*HASLEWOOD, G. A. D. *see also* BISSET, N. G. xlii
HAUROWITZ, F., TEKMAN, S., BILEN, M. & SCHWERIN, P. The purification of azoprotein antibodies by the dissociation of specific precipitates 304
HAWKINS, R. D. *see* MENDEL, B. xxii
§HEATLEY, N. G. Methods for the assay of antibiotics xiii
HENRY, K. M. & KON, S. K. The effect of age and of the supply of phosphorus on the assimilation of calcium by the rat 169
HILLS, G. M. *see* HART, P. D'A. xxvii
HOCH, H. *see* JOHNS, R. liii
HOPKINS, R. H. & PENNINGTON, R. J. The assay of the vitamin B_6 complex 110
HUBER, D. Determination of pregnanediol in urine for diagnostic purposes 609
HUGHES, D. E. *see* MCILWAIN, H. xliii
HUGHES, W. & LEVVY, G. A. The toxicity of arsine solutions for tissue slices 8
HUNT, J. N. A method of estimating peptic activity in gastric contents xxxix
*HUNT, J. N. A method of estimating peptic activity in gastric contents xlii
HUNTER, G. J. E. *see* EDSON, N. L. 139

JACKSON, J. *see* PINCUS, P. xlii
JACOB, J. J. C. The electrophoretic analysis of protein extracts from striated rabbit muscle 83
*JACOBY, F. *see* DARKE, S. J. liv
JAMES, S. P. *see* BRAY, H. G. lii
JOHNS, R., HOCH, H. & MARRACK, J. R. Metabolism of vitamin A in diseases of the kidneys liii
JOHNSTON, A. G. *see* SIMPSON, G. K. 181

KADER, M. M. A. *see* ELLINGER, P. 559
KALNITSKY, G. *see* BARRON, E. S. G. 62
KALNITSKY, G. *see also* BARRON, E. S. G. 346
KEILIN, D. & HARTREE, E. F. Activity of the cytochrome system in heart muscle preparations 500
KEILIN, D. & HARTREE, E. F. Effect of haematin on the oxidation of succinic acid by tissue preparations 503
KEILIN, D. & WANG, Y. L. Stability of haemoglobin and of certain endoerythrocytic enzymes *in vitro* 491
KENNEY, R. A. *see* BARCLAY, J. A. 586
KING, E. J. A grey wedge photometer for colorimetric analyses xxxii
KING, E. J. Cyan-haematin method for the determination of haemoglobin xxxiii
KING, E. J. *see also* ABUL-FADL, M. A. M. xxxii
KING, E. J. *see also* COXON, R. V. xxx
*KING, E. J. *see also* LATNER, A. L. xxxiv
KING, H. K. *see* GOULD, J. C. xxi
§KNIGHT, B. C. J. G. Quantitative biochemical analysis by microbiological response. Introductory survey i
KON, S. K. *see* HENRY, K. M. 169
§KREBS, H. A. The *d*- and *l*-amino-acid oxidases xxxiv
KREBS, H. A., SYKES, W. O. & BARTLEY, W. C. Acetylation and deacetylation of the *p*-amino group of sulphonamide drugs in animal tissues 622
KREULA, M. S. Absorption of carotene from carrots in man and the use of the quantitative chromic oxide indicator method in the absorption experiments 269

LAKE, H. J. *see* BRAY, H. G. liii
*LATNER, A. L., COXON, R. V. & KING, E. J. Estimation of miracil in biological fluids xxxiv
LATNER, A. L. *see also* COXON, R. V. xxx
LAWRIE, N. R. The excretion of *l*(−)-tyrosine in urine 41
LEAF, G. & NEUBERGER, A. The effect of diet on the glutathione content of the liver 280
LEAF, G. & NEUBERGER, A. The effect of diet on the glutathione content of the liver xx
LEIBOWITZ, J. *see* HALBERSTAEDTER, L. 235
LENNOX, F. G. Shrinkage of collagen xlvii
LESLIE, I. *see* DAVIDSON, J. N. xxvi
*LESLIE, I. *see also* DAVIDSON, J. N. xxxii
LEVVY, G. A. *see* CRAWFORD, T. B. B. 333
LEVVY, G. A. *see also* GRAHAM, A. F. 352
LEVVY, G. A. *see also* HUGHES, W. 8
LI, L. P. & BONNER, J. Experiments on the localization and nature of tea oxidase 105
LINDLEY, H. & PHILLIPS, H. The action of sulphites on the cystine disulphide linkages of wool. 5. The effect of some chemical modifications of the wool on the magnitude of the bisulphite-reactive fraction ($A+B$) and the relative magnitudes of subfractions A and B 34

LONG, C. *see* GIBSON, Q. H. 230
LOOFBOUROW, D. G. *see* LOOFBOUROW, J. R. 122
LOOFBOUROW, J. R. Intercellular hormones. 7. Release of amino-acids by damaged living yeast cells 119
LOOFBOUROW, J. R., OPPENHEIM-ERRERA, S., LOOFBOUROW, D. G. & YEATS, C. A. Intercellular hormones. 8. Release of nucleotides and nucleosides by damaged living cells 122
LOOFBOUROW, J. R. *see also* WEBB, A. M. 114
LORCH, J. I. *see* BURGEN, A. S. V. 223
LUCAS, C. C. *see* MCARTHUR, C. S. 612
LUTWAK-MANN, C. Metabolic processes in the gastric mucosa 19
LUTWAK-MANN, C. Acid-soluble P compounds in bone marrow xxx

MCARTHUR, C. S., LUCAS, C. C. & BEST, C. H. The mode of action of lipotropic agents. Proof of the *in vivo* incorporation of triethyl-β-hydroxyethyl-ammonium hydroxide into the phospholipid molecule 612
MCENTEGART, M. G. The *in vitro* bacteriostatic activity of 3-hydroxysulphanilamide. *Appendix* 2 *to* The metabolism of sulphonamides. 3. The detection of 3-hydroxysulphanilamide in the urine of hospital patients treated with sulphanilamide (WILLIAMS, R. T.) 6
§MCILWAIN, H. Some principles in the use of microbiological methods. The types of response measured and their relationship to substances being determined iii
MCILWAIN, H., ROPER, J. A. & HUGHES, D. E. Determination of glutamine in quantities of some millimicro gram-molecules, and a demonstration that inhibition of the synthesis of glutamine by streptococci is associated with inhibition of their growth xliii
MACLAGAN, N. F. The thymol flocculation test xxxvii
MACLAGAN, N. F. & BUNN, D. Flocculation tests with electrophoretically separated serum proteins 580
MACLAGAN, N. F. & BUNN, D. Flocculation tests with electrophoretically separated serum proteins xix
MCNAUGHT, M. L. & SMITH, J. A. B. Sources of energy for the bacteria of the bovine rumen xliii
§MACRAE, T. F. Estimation of amino-acids by the microbiological technique x
§MACRAE, T. F. The microbiological estimation of B vitamins xi
MAGER, J. Studies on the polysaccharides of capsulated yeasts 603
MAGGIONI, G. F. Some observations on salicylate therapy in children lii
MAGRATH, D. *see* ALBERT, A. 534
MAPSON, L. W. & CRUIKSHANK, E. M. Effect of various salts on the synthesis of ascorbic acid and carotene in cress seedlings 197
MARCUS, S. Antibacterial activities of geodin and erdin. *Appendix to* Studies in the biochemistry of micro-organisms. 74. The molecular constitution of geodin and erdin, etc. Part 3. (CALAM, C. T. *et al.*) 462
MARRACK, J. R. *see* JOHNS, R. liii
MARRIAN, G. F. *see* STEVENSON, M. F. 507
MARRIAN, G. F. *see also* SUTHERLAND, E. S. 193
MARTIN, A. J. P. *see* CONSDEN, R. 590
MARTIN, A. J. P. *see also* CONSDEN, R. 596
MAW, G. A. Creatine and creatinine excretion in women 482
MAWSON, C. A. A comparison between single-sample tests for liver damage xxviii
MENDEL, B. & HAWKINS, R. D. Di*iso*propyl fluorophosphonate as a selective inhibitor of pseudo-cholinesterase xxii
MEYER, J. *see* BARRON, E. S. G. 69
MEYER, J. *see also* BARRON, E. S. G. 78
MIDDLEBROOK, W. R. & PHILLIPS, H. The action of formaldehyde on the cystine disulphide linkages of wool. 2. The conversion of subfraction A of the combined cystine into combined lanthionine and djenkolic acid and subfraction B into combined thiazolidine-4-carboxylic acid 218
MILLER, Z. B. *see* BARRON, E. S. G. 62
MILLER, Z. B. *see also* BARRON, E. S. G. 69
MILLER, Z. B. *see also* BARRON, E. S. G. 78
MILLIS, J. & REED, F. B. The effect of sodium alginate on the absorption of calcium 273
MITCHELL, P. D. *see* DANIELLI, J. F. 325
MOORE, T. *see* WALKER, S. E. 575
MORRISON, A. L. *see* RINDERKNECHT, H. 463
MORTON, R. A., SALAH, M. K. & STUBBS, A. L. Conversion of retinene$_2$ to vitamin A$_2$ *in vivo* xxiv
MORTON, R. A. & STUBBS, A. L. A re-examination of halibut-liver oil. Relation between biological potency and ultraviolet absorption due to vitamin A 525
MORTON, R. A. *see also* BALL, S. xxiv
MORTON, R. A. *see also* GLOVER, J. 94
MORTON, R. A. *see also* GLOVER, J. 97
MORTON, R. A. *see also* GLOVER, J. xlv

NEALE, F. C. *see* BRAY, H. G. liii
NEEDHAM, D. M., COHEN, J. A. & BARRETT, A. M. The mechanism of damage to the bone marrow in systemic poisoning with mustard gas 631
NEUBERGER, A. Studies on alcaptonuria. 1. The estimation of homogentisic acid 431
§NEUBERGER, A. The role of *d*-amino-acids in the nutrition and metabolism of mammals xxxv
NEUBERGER, A., RIMINGTON, C. & WILSON, J. M. G. Studies on alcaptonuria. 2. Investigations on a case of human alcaptonuria 438
NEUBERGER, A. & WEBSTER, T. A. Studies on alcaptonuria. 3. Experimental alcaptonuria in rats 449
NEUBERGER, A. *see also* FULLER, A. T. 11
NEUBERGER, A. *see also* LEAF, G. 280
NEUBERGER, A. *see also* LEAF, G. xx

§OAKLEY, C. L. The assay of antitoxins xv
OPPENHEIM-ERRERA, A. *see* LOOFBOUROW, J. R. 122
ÖRSTRÖM, Å. *see* BORELL, U. 398
OWEN, L. N. *see* DANIELLI, J. F. 325
OXFORD, A. E. *see* CALAM, C. T. 458

PAINTER, H. A. & ZILVA, S. S. The influence of *l*-ascorbic acid on the rupture of the benzene ring of *l*-tyrosine consumed in high doses by guinea-pigs 511
PAINTER, H. A. & ZILVA, S. S. The tautomeric conversion of *p*-hydroxyphenylpyruvic acid 520
PENNINGTON, R. J. *see* HOPKINS, R. H. 110
PERRY, S. V. *see* BAILEY, K. xxii
PETERS, R. A., SPRAY, G. H., STOCKEN, L. A., COLLIE, C. H., GRACE, M. A. & WHEATLEY, G. A. The use of British anti-lewisite containing radioactive sulphur for metabolism investigations 370
PETERS, R. A. & STOCKEN, L. A. Preparation and pharmacological properties of 4-hydroxymethyl-2-(3′-amino-4′-hydroxyphenyl)-1:3-dithia-2-arsa*cyclo*pentane (Mapharside-BAL compound) 53
PETERS, R. A. & WAKELIN, R. W. The potentiation of the toxicity of some vesicants to the pyruvate oxidase system *in vitro* by certain dithio-compounds 545
PETERS, R. A. & WAKELIN, R. W. Observations upon a compound of mustard gas and kerateine 550
PETERS, R. A. & WAKELIN, R. W. The splitting of some thio-ether linkages by silver salts under mild conditions 555
PHILLIPS, D. M. P. *see* BUTLER, J. A. V. xxiii
PHILLIPS, D. M. P. *see also* BUTLER, J. A. V. xxxvii
PHILLIPS, H. *see* LINDLEY, H. 34
PHILLIPS, H. *see also* MIDDLEBROOK, W. R. 218

PINCUS, P. Proteolysis of cartilage and bone (loss of calcium) xvii
PINCUS, P. & JACKSON, J. The electrometric pH determination of sound and carious dentine xlii
PRIE, A. The action of mustard gas on ox cornea collagen 185
PITT RIVERS, R. *see* RIVERS, R. P.
§PONTECORVO, G. Genetic techniques in the development of microbiological assays xii
POWELSON, D. M., WILSON, P. W. & BURRIS, R. H. Oxidation of glucose, glycerol and acetate by *Staphylococcus aureus* 486

RAISTRICK, H. *see* BRACKEN, A. 569
RAISTRICK, H. *see also* CALAM, C. T. 458
RAUTANEN, N. *see* VIRTANEN, A. I. 101
REED, F. B. *see* MILLIS, J. 273
RHODEN, E. *see* ARCHER, H. E. xxxi
RICHARDS, M. B. Influence of the extraction rate of flour on conditioned pyridoxine deficiency in rats xliii
*RICHARDS, M. B. Conditioned pyridoxine deficiency in rats xlvi
RIMINGTON, C., FULTON, J. D. & SHEINMAN, H. The pigment of the malarial parasites *Plasmodium knowlesi* and *Plasmodium gallinaceum* 619
RIMINGTON, C. *see also* DENT, C. E. 253
RIMINGTON, C. *see also* NEUBERGER, A. 438
RINDERKNECHT, H., WARD, J. L., BERGEL, F. & MORRISON, A. L. Studies on antibiotics. 2. Bacteriological activity and possible mode of action of certain non-nitrogenous natural and synthetic antibiotics 463
RIVERS, R. P. The oxidation of diiodotyrosine. I. 3:5-diiodo-4-hydroxybenzaldehyde as a possible intermediate in thyroxine formation xxxix
ROPER, J. A. *see* MCILWAIN, H. xliii
§RYDON, H. N. *d*-Amino-acids in microbiological chemistry xxxvi
RYMAN, B. E. *see* BRAY, H. G. 212
RYMAN, B. E. *see also* BRAY, H. G. lii

*SAGROTT, P. E. *see* FRAZER, A. C. liii
SAHASRABUDHE, M. B. & SMITH, A. E. W. The determination of dienoestrol 190
SALAH, M. K. *see* MORTON, R. A. xxiv
*SAMMONS, H. G. & FINEAN, J. B. Schmidt-Nielsen technique for micro-estimation of fat liii
SAUNDERS, B. C. *see* COOK, H. G. 558
SCARBOROUGH, H. & WOKES, F. Clinical assay of vitamin P. II. The dose/response curve for hesperidin xvii
SCARBOROUGH, H. & WOKES, F. Clinical assay of vitamin P. IV. A method for evaluating the potency of rose-hip preparations xxxviii
SCARBOROUGH, H. *see also* GLAZEBROOK, A. J. xxv
SCHÜTZ, F. *see* DIRNHUBER, P. liv
SCHWERIN, P. *see* HAUROWITZ, F. 304
SHAPIRO, B. The mechanism of phlorrhizin glucosuria 151
SHAW, G. *see* DANIELLI, J. F. 325
SHEINMAN, H. *see* RIMINGTON, C. 619
SIMPSON, B. W. Iodine metabolism in relation to dietary calcium xlv
SIMPSON, G. K., JOHNSTON, A. G. & TRAILL, D. A polarographic study of acid-insoluble fractions from iodoproteins 181
SIMPSON, M. I. *see* CHALLENGER, F. xl
*SIMPSON, M. I. *see also* CHALLENGER, F. xlii
SINGER, T. P. *see* BARRON, E. S. G. 69
SMILES, J. *see* ELFORD, W. J. xxv
SMITH, A. E. W. *see* SAHASRABUDHE, M. B. 190
SMITH, J. A. B. *see* MCNAUGHT, M. L. xliii
SPRAY, G. H. A note on the microdetermination of British anti-lewisite 360
SPRAY, G. H. The effect of injected British anti-lewisite on urinary sulphur and glucuronic acid fractions 366
SPRAY, G. H., STOCKEN, L. A. & THOMPSON, R. H. S. Further investigations on the metabolism of 2:3-dimercaptopropanol 362
SPRAY, G. H. *see also* PETERS, R. A. 370
STEPHEN, J. M. L. *see* BUTLER, J. A. V. xxiii
STEPHEN, J. M. L. *see also* BUTLER, J. A. V. xxxvii
STEVENSON, M. F. & MARRIAN, G. F. The determination of oestrogens in human pregnancy urine. A new method of correcting for the brown colour developed in the Kober reaction by non-oestrogenic substances 507
STEWART, J. Cobalt as a growth factor xlii
STOCKEN, L. A. British anti-lewisite as an antidote for acute mercury poisoning 358
STOCKEN, L. A., THOMPSON, R. H. S. & WHITTAKER, V. P. British anti-lewisite. 4. Antidotal effects against therapeutic arsenicals 47
STOCKEN, L. A. *see also* PETERS, R. A. 53
STOCKEN, L. A. *see also* PETERS, R. A. 370
STOCKEN, L. A. *see also* SPRAY, G. H. 362
STUBBS, A. L. & WILLIAMS, R. T. The oxidation products of orthanilamide in the rabbit xlix
STUBBS, A. L. *see also* MORTON, R. A. 525
STUBBS, A. L. *see also* MORTON, R. A. xxiv
SUTHERLAND, E. S. & MARRIAN, G. F. The separation of non-ketonic and ketonic sodium glucuronidates from the 'sodium pregnanediol glucuronidate' of human pregnancy urine: the isolation of pure sodium pregnane-3(α):20(α)-diol glucuronidate 193
SWYER, G. I. M. The hyaluronidase content of semen 409
SWYER, G. I. M. The release of hyaluronidase from spermatozoa 413
SWYER, G. I. M. & EMMENS, C. W. A modified method for the viscosimetric assay of hyaluronidase 29
SYKES, W. O. *see* KREBS, H. A. 622
SYNGE, R. L. M. *see* CONSDEN, R. 596

TEKMAN, S. *see* HAUROWITZ, F. 304
*THOMSON, L. C. An inorganic grey solution xlii
THOMPSON, R. H. S. & WHITTAKER, V. P. Antidotal activity of British anti-lewisite against compounds of antimony, gold and mercury 342
THOMPSON, R. H. S. *see also* SPRAY, G. H. 362
THOMPSON, R. H. S. *see also* STOCKEN, L. A. 47
THORPE, W. V. *see* BRAY, H. G. 212
THORPE, W. V. *see also* BRAY, H. G. lii
THORPE, W. V. *see also* BRAY, H. G. liii
TOSIC, J. Some factors affecting chemical detection of hydrogen peroxide formed by oxidative deamination of certain amino-acids by spermatozoa xliv
TRAILL, D. *see* SIMPSON, G. K. 181
§TRISTRAM, G. R. The origin of *d*-amino-acids in proteins with special reference to *d*-glutamic acid xxxv

VAN HEYNINGEN, R. *see* WEBB, E. C. 74
VIRTANEN, A. I. & RAUTANEN, N. Determination of certain amino-acids by ninhydrin oxidation to volatile aldehydes 101

WAKELIN, R. W. *see* PETERS, R. A. 545
WAKELIN, R. W. *see also* PETERS, R. A. 550
WAKELIN, R. W. *see also* PETERS, R. A. 555
WALKER, S. E., EYLENBURG, E. & MOORE, T. The action of vitamin K in hypervitaminosis A 575
WANG, Y. L. *see* KEILIN, D. 491
WARD, J. L. *see* RINDERKNECHT, H. 463
WARREN, F. L. *see* ARCHER, H. E. xxxi
WEBB, A. M. & LOOFBOUROW, J. R. Intercellular hormones. 6. Release and synthesis of factors of the vitamin B complex by damaged living tissues 114

WEBB, E. C. & VAN HEYNINGEN, R. The action of British anti-lewisite (BAL) on enzyme systems 74
WEBSTER, T. A. *see* FULLER, A. T. 11
WEBSTER, T. A. *see also* NEUBERGER, A. 449
WHEATLEY, G. A. *see* PETERS, R. A. 370
WHIDBORNE, J. *see* GRAY, C. H. 155
WHITE, J. C. *see* DAVIDSON, J. N. xxvi
*WHITE, J. C. *see also* DAVIDSON, J. N. xxxii
WHITTAKER, V. P. The effect of BAL on pyruvate oxidation in pigeon brain dispersions. *Appendix to* British anti-lewisite. 4. Antidotal effects against therapeutic arsenicals (STOCKEN, L. A. *et al.*) 52
WHITTAKER, V. P. An experimental investigation of the 'ring hypothesis' of arsenical toxicity 56
WHITTAKER, V. P. *see also* STOCKEN, L. A. 47
WHITTAKER, V. P. *see also* THOMPSON, R. H. S. 342
WILLIAMS, R. T. The metabolism of sulphonamides. 3. The detection of 3-hydroxysulphanilamide in the urine of hospital patients treated with sulphanilamide 1
WILLIAMS, R. T. *Appendix I.* The *in vivo* antibacterial activity of 3-hydroxysulphanilamide 6
WILLIAMS, R. T. *see also* DODGSON, K. S. xlix
WILLIAMS, R. T. *see also* DODGSON, K. S. 1 *Proc.*
WILLIAMS, R. T. *see also* HARTLES, R. L. 206
WILLIAMS, R. T. *see also* HARTLES, R. L. li
WILLIAMS, R. T. *see also* STUBBS, A. L. xlix
WILSON, A. *see* BENDER, A. E. 423
WILSON, J. M. G. *see* NEUBERGER, A. 438
WILSON, P. W. *see* POWELSON, D. M. 486
WOIWOD, A. J. The determination of iron in biological material 39
WOKES, F. *see* GLAZEBROOK, A. J. xxv
WOKES, F. *see also* SCARBOROUGH, H. xvii
WOKES, F. *see also* SCARBOROUGH, H. xxxviii
WOOD, P. B. *see* BRAY, H. G. liii
WOOTTON, I. D. P. Continuous extraction apparatus xxxiv
§WORK, T. S. *d*- and *l*-Amino-acids in antibiotics xxxvi

YEATS, C. A. *see* LOOFBOUROW, J. R. 122
YESHODA, K. M. & DAMODARAN, M. Amino-acids and proteins in haemoglobin formation. 1. Tryptophan 382
YOUNG, L. The metabolic conversion of naphthalene to 1:2-dihydronaphthalene-1:2-diol 417

ZILVA, S. S. *see* PAINTER, H. A. 511
ZILVA, S. S. *see also* PAINTER, H. A. 520

Index of Subjects

Note. Entries marked with an asterisk (*) refer to communications made in title only.
Entries marked with a section mark (§) refer to contributions to Symposia.
Small roman numerals refer to pages in *Proceedings of the Biochemical Society.*

*Absorption, intestinal, of fat (Frazer, French & Sagrott) liii
Absorption, intestinal, of calcium, influence of Na alginate (Millis & Reed) 273
Absorption, intestinal, of carotene (Kreula) 269
Absorption, intestinal, of 3-methylglucose (Campbell & Davson) xl
Absorption spectrum of *p*-aminophenol (Williams) 1
Absorption spectrum of cerebrospinal fluid (ultraviolet) (Hack) 522
Absorption spectrum of halibut liver oil (Morton & Stubbs) 525
Absorption spectrum of 4-hydroxymetanilamide (Williams) 1
Absorption spectrum of 3-hydroxysulphanilamide (Williams) 1
Absorption spectrum of nucleotides (Loofbourow, Oppenheim-Errera, Loofbourow & Yeats) 122
Absorption spectrum of vitamin A (Morton & Stubbs) 525
N-Acetamidobenzamides in urine after aminobenzamides (Bray, Lake, Neale, Thorpe & Wood) liii
Acetate oxidation by *Staph. aureus* (Powelson, Wilson & Burris) 486
Acetoin formation by *Aerobacter aerogenes* (Freeman) 389
Acetylation of sulphonamide drugs *in vivo* (Krebs, Sykes & Bartley) 622
Acetylsulphonamides, deacetylation *in vivo* (Krebs, Sykes and Bartley) 622
Actin-myosin reaction, role of SH groups (Bailey & Perry) xxii
d-Adrenaline excretion as ethereal sulphate (Dodgson, Garton & Williams) 1 *Proc.*
d-Adrenaline excretion as glucuronide (Dodgson, Garton & Williams) 1 *Proc.*
Aerobacter aerogenes, fermentation of sucrose (Freeman) 389
β-Alanine estimation (Fuller, Neuberger & Webster) 11
Alcaptonuria, experimental production in rats (Neuberger & Webster) 449
Alcaptonuria, genetics (Neuberger, Rimington & Wilson) 438
Alcaptonuria, homogentisic acid in, estimation (Neuberger) 431
Alcaptonuria, homogentisic acid in, formation (Neuberger, Rimington & Wilson) 438
Alcaptonuria, metabolism (Neuberger, Rimington & Wilson) 438
Alginic acid (Na salt) influence on Ca absorption (Millis & Reed) 273
Alloxan action on alkaline phosphatase (Burgen & Lorch) 223
Ambamide (*p*-aminomethylbenzenesulphonamide) *see below*
Ambamide, *p*-carboxybenzenesulphonamide from (Hartles & Williams) 206
Ambamide, colour test (Hartles & Williams) 206
Ambamide metabolism (Hartles & Williams) 206
Amides, hydrolysis by liver extracts (Bray, James, Ryman & Thorpe) liii
Amides, metabolism (Bray, Lake, Neale, Thorpe & Wood) liii
Amidines, antibiotic action (Fuller) 403
Amidoximes, antibiotic action (Fuller) 403
Amines, aromatic, antibiotic action (Fuller) 403
Amines, tertiary, separation (McArthur, Lucas & Best) 612
Amino-acids, aromatic, metabolism in alcaptonuria (Neuberger, Rimington & Wilson) 438
§Amino-acids, biological activity and optical form, Symposium xxxiv
Amino-acids, deamination by spermatozoa (Tosic) xliv
Amino-acids, deficiency, alcaptonuria in (Neuberger & Webster) 449
§*d*-Amino-acids, derivatives, pharmacology (Bergel) xxxvi
§*l*-Amino-acids, derivatives, pharmacology (Bergel) xxxvi
§Amino-acids, estimation by bacterial enzymes (Gale) vii
§Amino-acids, estimation by microbiological techniques (Macrae) x
Amino-acids, estimation by ninhydrin oxidation (Virtanen & Rautanen) 101
§*d*-Amino-acids in antibiotics (Work) xxxvi
§*l*-Amino-acids in antibiotics (Work) xxxvi
§*d*-Amino-acids in microbiological chemistry (Rydon) xxxvi
§*d*-Amino-acids in nutrition and metabolism (Neuberger) xxxv
§Amino-acids, nomenclature (Chibnall) xxxiv
§*d*-Amino-acids, origin in proteins (Tristram) xxxv
§*d*-Amino-acids, pharmacology (Bergel) xxxvi
§*l*-Amino-acids, pharmacology (Bergel) xxxvi
Amino-acids, release by damaged cells (Loofbourow) 119
Amino-acids, sequence in gramicidin S (Consden, Gordon, Martin & Synge) 596
Amino-acid composition of bacteria and yeasts (Freeland & Gale) 135
§*d*-Amino-acid oxidase (Krebs) xxxiv
§*l*-Amino-acid oxidase (Krebs) xxxiv
Amino-aciduria in Fanconi syndrome (Dent) 240
o-Aminobenzenesulphonamide *see* Orthanilamide
Aminobenzoic acid metabolism (Bray, Lake, Neale, Thorpe & Wood) liii
3-Amino-4-hydroxyphenylarsenoxide hydrochloride *see* Mapharside
3-Amino-4-hydroxyphenylarsonic acid, British anti-lewisite as antidote (Stocken, Thompson & Whittaker) 47
p-Aminomethylbenzenesulphonamide *see* Ambamide
p-Aminophenol, absorption spectrum (Williams) 1
Anaemia in histidine deficiency (Fuller, Neuberger & Webster) 11
Aneurin *see* Vitamin B_1
Anserine, effect of histidine deficiency (Fuller, Neuberger & Webster) 11
Antibacterial activity of erdin (Marcus) 462
Antibacterial activity of geodin (Marcus) 462
Antibacterial activity of geodin (Rinderknecht, Ward, Bergel & Morrison) 463
Antibacterial activity of gliotoxin (Bracken & Raistrick) 569
Antibacterial activity of 3-hydroxysulphanilamide *in vitro* (McEntegart) 6
Antibacterial activity of 3-hydroxysulphanilamide *in vivo* (Williams) 6
Antibacterial activity of spinulosin (Bracken & Raistrick) 569
Antibacterial action *see also* Antibiotics
§Antibiotics, *d*- and *l*-amino-acids in (Work) xxxvi
Antibiotics, aromatic amines, amidines, etc. as (Fuller) 403
§Antibiotics, microbiological assay (Heatley) xiii
§Antibiotics, microbiological assay (Knight) i

Antibiotics, mode of action (Rinderknecht, Ward, Bergel & Morrison) 463
Antibiotics, production by *B. licheniformis* (Hart & Hills) xxvii
Antibiotics, production by *Penicillium cinerascens* Biourge (Bracken & Raistrick) 569
Antibiotics *see also* Antibacterial activity
Antibodies, azoprotein, purification (Haurowitz, Tekman, Bilen & Schwerin) 304
§Antigens, enzymic, in microbiological assay (Knight) i
§Antitoxins in microbiological assay (Oakley) xv
Arachidonic acid effect on insect growth (Fraenkel & Blewett) xviii
Arachidonic acid in insect metabolism (Fraenkel & Blewett) 475
Arginase in liver during pregnancy, lactation and mammary involution (Folley & Greenbaum) 261
Arginase in mammary gland during pregnancy, lactation and involution (Folley & Greenbaum) 261
Arsenic acid micro-estimation in mixtures (Crawford) 129
Arsenical toxicity, 'ring hypothesis' (Whittaker) 56
Arsenical vesicants, effect of British anti-lewisite (Graham, Levvy & Chance) 352
Arsenical vesicants, fate in skin (Graham, Levvy & Chance) 352
Arsenicals, inhibition of SH-enzymes by (Barron, Miller, Bartlett, Meyer & Singer) 69
Arsenicals, metabolism (Crawford & Levvy) 333
Arsenicals, therapeutic, action on pyruvate oxidation (Stocken, Thompson & Whittaker) 47
Arsenicals, therapeutic, British anti-lewisite as antidote (Stocken, Thompson & Whittaker) 47
Arsenious acid micro-estimation in mixtures (Crawford) 129
Arsenite, toxicity for tissue slices (Hughes & Levvy) 8
Arsine, toxicity for tissue slices (Hughes & Levvy) 8
Arsphenamine (3:3′-diamino-4:4′-dihydroxyarsenobenzene hydrochloride) *see below*
Arsphenamine, British anti-lewisite as antidote (Stocken, Thompson & Whittaker) 47
Ascorbic acid in cerebrospinal fluid (Hack) 522
l-Ascorbic acid, influence on tyrosine metabolism (Painter & Zilva) 511
Ascorbic acid, seasonal variations in diet (Glazebrook, Scarborough & Wokes) xxv
Ascorbic acid synthesis in cress (Mapson & Cruikshank) 197
Azoprotein antibodies, purification (Haurowitz, Tekman, Bilen & Schwerin) 304

Bacillus licheniformis, formation of antibiotic (Hart & Hills) xxvii; *see also* Licheniformin
Bacteria, activity in soil, *see* Soil bacteria
Bacteria, amino-acid composition (Freeland & Gale) 135
Bacteria, digestion of cellulose in rumen (Baker & Harriss) xlvi
Bacteria, utilization of nicotinamide derivatives (Ellinger, Fraenkel & Kader) 559
§Bacterial enzymes for estimation of amino-acids (Gale) vii
Bacteriophage, electron micrographs (Elford, Smiles, Chu & Dudgeon) xxv
Bacteriostatics *see* Antibacterial activity; *see also* Antibiotics
BAL *see* British anti-lewisite
BAL-INTRAV *see* British anti-lewisite glucoside
Benzoic acid oxidation by soil bacteria (Evans) 373
Blood, estimation of creatinine (Barclay & Kenney) 586
Blood, estimation of urethane (Archer, Chapman, Rhoden & Warren) xxxi
Blood, vitamin A levels (Glover, Goodwin & Morton) 97
Bone, proteolysis (Pincus) xvii
Bone marrow, acid-soluble P compounds (Lutwak-Mann) xxx
Bone marrow, action of mustard gas (Needham, Cohen & Barrett) 631
*Bone marrow histology in relation to nucleic acids (Davidson, Leslie & White) xxxii
Bone marrow nucleic acids in cells (Davidson, Leslie & White) xxvi
Brain phosphate turnover (Borell & Örström) 398
British anti-lewisite (2:3-dimercaptopropanol) *see below*
British anti-lewisite action on enzymes (Barron, Miller & Meyer) 78
British anti-lewisite action on enzymes (Webb & van Heyningen) 74
British anti-lewisite action on pyruvate oxidation (Whittaker) 52
British anti-lewisite action on tissue metabolism (Barron, Miller & Meyer) 78
British anti-lewisite activation of SH-enzymes (Barron, Miller, Bartlett, Meyer & Singer) 69
British anti-lewisite as antidote to arsenical vesicants (Graham, Levvy & Chance) 352
British anti-lewisite as antidote to compounds of Sb, Au, Hg (Thompson & Whittaker) 342
British anti-lewisite as antidote to mercurial poisoning (Stocken) 358
British anti-lewisite as antidote to therapeutic arsenicals (Stocken, Thompson & Whittaker) 47
British anti-lewisite destruction of insulin (Barron, Miller & Meyer) 78
British anti-lewisite influence on urinary sulphur (Spray) 366
British anti-lewisite influence on glucuronide excretion (Spray) 366
British anti-lewisite inhibition of metal-containing enzymes (Webb & van Heyningen) 74
British anti-lewisite metabolism (Spray, Stocken & Thompson) 362
British anti-lewisite micro-determination (Spray) 360
British anti-lewisite glucoside, preparation (Danielli, Danielli, Fraser, Mitchell, Owen & Shaw) 325
British anti-lewisite, radioactive, in metabolic investigations (Peters, Spray, Stocken, Collie, Grace & Wheatley) 370
2:3-Butyleneglycol formation by *Aerobacter aerogenes* (Freeman) 389

Calciferol effect on calcification (Dawson & Dolby) xlvii
Calciferol effect on serum calcium (Dawson & Dolby) xlvii
Calcification, influence of calciferol on (Dawson & Dolby) xlvii
Calcium absorption, influence of Na alginate (Millis & Reed) 273
Calcium assimilation, effect of age (Henry & Kon) 169
Calcium assimilation, effect of phosphorus (Henry & Kon) 169
Calcium, action on iodine metabolism (Simpson) xlv
Calcium, serum, effect of calciferol (Dawson & Dolby) xlvii
Calibration of Barcroft differential manometers (Gibson) 44
Capsular polysaccharides of yeasts (Mager) 603
4-Carbamylphenylglucuronide in urine (Bray, Ryman & Thorpe) 212
Carbonic anhydrase, stability *in vitro* (Keilin & Wang) 491
Carcinogenic compounds, inhibitory action on succinoxidase (Elson) xxi
Carlosic acid formation by *Penicillium cinerascens* Biourge (Bracken & Raistrick) 569
Carnosine, effect of histidine deficiency (Fuller, Neuberger & Webster) 11
Carotene absorption (Kreula) 269
β-Carotene, formation of vitamin A from, in gut (Glover, Goodwin & Morton) xlv

Carotene synthesis in cress (Mapson & Cruikshank) 197
Cartilage, proteolysis (Pincus) xvii
Casein, oxidized, production of porphyrinuria by (Dent & Rimington) 253
Catalase stability *in vitro* (Keilin & Wang) 491
Catechol excretion as ethereal sulphate (Dodgson, Garton & Williams) 1 *Proc.*
*Cellulose, bacterial decomposition in rumen (Baker & Harriss) xlvi
Cerebrospinal fluid, ultraviolet absorption spectrum (Hack) 522
Chelating agents for trace metals (Albert & Gledhill) 529
β-Chlorovinyldichloroarsine *see* Lewisite I
Choline, lipotropic action (McArthur, Lucas & Best) 612
Choline esterase stability *in vitro* (Keilin & Wang) 491
Choline esterase *see also* Pseudo-choline-esterase
Chromatographic separation of free and esterified vitamin A (Glover, Goodwin & Morton) 94
Chromatography *see* Paper partition chromatography
Cobalt as growth factor (Stewart) xlii
Collagen, action of mustard gas (Pirie) 185
Collagen, shrinkage (Lennox) xlvii
Colorimetry, grey wedge photometer (King) xxxii
Colour test for ambamide (Hartles & Williams) 206
Colour test for 3-hydroxysulphanilamide (Williams) 1
Colour test for miracil (Coxon, Latner & King) xxx
Continuous extraction apparatus (Wootton) xxxiv
Copper, effect on destruction of vitamin B_1 (Farrer) 162
Creatine excretion in women (Maw) 482
Creatinine estimation (Barclay & Kenney) 586
Creatinine excretion in women (Maw) 482
Cress, synthesis of ascorbic acid and carotene (Mapson & Cruikshank) 197
Cyan-haematin method for estimation of haemoglobin (King) xxxiii
Cyanic acid in erythrocytes (Dirnhuber & Schutz) liv
Cystine in liver protein (Dent) 314
Cystine disulphide linkages of wool, action of formaldehyde (Middlebrook & Phillips) 218
Cystine disulphide linkages of wool, action of sulphites (Lindley & Phillips) 34
Cytochrome oxidase activity in heart muscle preparations (Keilin & Hartree) 500
Cytochrome oxidase, alleged separation into two components (Keilin & Hartree) 500
Cytochrome system activity in heart muscle preparations (Keilin & Hartree) 500

Deacetylation of acetylated sulphonamides *in vivo* (Krebs, Sykes & Bartley) 622
Dehydrocarolic acid formation by *Penicillium cinerascens* Biourge (Bracken & Raistrick) 569
Dentine, electrometric determination of pH (Pincus & Jackson) xlii
Diabetogenic ureides, action on alkaline phosphatase (Burgen & Lorch) 223
3:3′-Diamino-4:4′-dihydroxyarsenobenzene hydrochloride *see* Arsphenamine
3:3′-Diamino-4:4′-dihydroxyarsenobenzene-*N*-methylene-sulphoxylate (sodium salt) *see* Neoarsphenamine
β:β′-Dichlorodiethylsulphide *see* Mustard gas
Dienoestrol determination (Sahasrabudhe & Smith) 190
Dienoestrol metabolism (Dodgson, Garton & Williams) xlix
Digitonides of steroid ketones (Haslewood) xli
Digitonin precipitation of steroid ketones (Haslewood) 639
Diguanides, antibiotic action (Fuller) 403
1:2-Dihydronaphthalene-1:2-diol formation from naphthalene (Young) 417
3:5-Diiodo-4-hydroxybenzaldehyde in thyroxine formation (Rivers) xxxix
Diiodotyrosine oxidation (Rivers) xxxix
Di*iso*propyl fluorophosphonate inhibition of pseudocholine-esterase (Mendel & Hawkins) xxii
2:3-Dimercaptopropanol *see* British anti-lewisite
Dimethyl-β-carboxyethylsulphonium hydroxide as precursor of dimethyl sulphide in algae (Challenger & Simpson) xl
Dimethyl-β-propiothetine *see* Dimethyl-β-carboxyethylsulphonium hydroxide
Dimethyl sulphide formation by marine algae (Challenger & Simpson) xl, xlii
Dithiols, action on enzymes (Barron, Miller & Meyer) 78
Dithiols, action on Fe-porphyrins (Barron, Miller & Kalnitsky) 62
Dithiols, action on pyruvate oxidation (Whittaker) 56
Dithiols, activation of succinoxidase by (Barron & Kalnitsky) 346
Dithiols, combination with heavy metals (Barron, Miller & Kalnitsky) 62
Dithiols, estimation (Barron, Miller & Kalnitsky) 62
Dithiols, oxidation (Barron, Miller & Kalnitsky) 62
Dithiols, potentiation of vesicants by (Peters & Wakelin) 545
Dithiols, reactivation of enzymes (Barron, Miller, Bartlett, Meyer & Singer) 69
Dithiols *see also* British anti-lewisite
Djenkolic acid from wool (Middlebrook & Phillips) 218

Electron micrographs of bacteriophage and viruses (Elford, Smiles, Chu & Dudgeon) xxv
Electrophoresis of proteins (semi-continuous) (Bunn) xxiv
Electrophoresis of striated muscle proteins (Jacob) 83
Enzymes, action of British anti-lewisite (Barron, Miller & Meyer) 78
Enzymes, action of British anti-lewisite (Webb & van Heyningen) 74
Enzymes, action of dithiols (Barron, Miller & Meyer) 78
§Enzymes, bacterial, estimation of amino-acids by (Gale) vii
Enzymes, endoerythrocytic, stability *in vitro* (Keilin & Wang) 491
Enzymes, inhibition by lewisite (Barron, Miller, Bartlett, Meyer & Singer) 69
Enzymes, metal-containing, inhibition by British anti-lewisite (Webb & van Heyningen) 74
Enzymes, proteolytic, action on insulin (Butler, Dodds, Phillips & Stephen) xxiii
Enzymes, reactivation by dithiols (Barron, Miller, Bartlett, Meyer & Singer) 69
Enzymes *see also* SH enzymes
§Enzymic antigens in microbiological assay (Knight) i
Ephestia kuehniella, *see* Flour moth
Erdin, antibacterial activity (Marcus) 462
Erdin, constitution (Calam, Clutterbuck, Oxford & Raistrick) 458
Erythrocytes, haemolysis and fixation by X-rays (Halberstaedter & Leibowitz) 235
Erythrocytes, cyanate in (Dirnhuber & Schütz) liv
Erythrocytes, stability of enzymes in, *in vitro* (Keilin & Wang) 491
§Essential metabolites, microbiological assay (Knight) i
Ethereal sulphate in urine *see* Urine
Ethylcarbamate *see* Urethane
Extraction apparatus, continuous (Wootton) xxxiv

Fanconi syndrome, amino-aciduria in (Dent) 240
*Fat absorption (Frazer, French & Sagrott) liii
*Fat micro-estimation (Sammons & Finean) liii
Fermentation of *d*-fructopyranose (Gottschalk) 478
Fermentation of *d*-mannose, effect of temperature (Gottschalk) 276
Fermentation of sucrose (*Aerobacter aerogenes*) (Freeman) 389
Ferriprotoporphyrin *see* Haematin

Flour moth, arachidonic and linoleic acids in metabolism (Fraenkel & Blewett) 475
Flour moth, effect of arachidonic acid on growth (Fraenkel & Blewett) xviii
Flour moth, effect of linoleic acid on growth (Fraenkel & Blewett) xviii
1:2:4-Fluorodinitrobenzene, preparation (Cook & Saunders) 558
1:2:4-Fluorodinitrobenzene, vesicant action (Cook & Saunders) 558
Fluorophosphonates *see* Di*iso*propyl fluorophosphonate
Folic acid effect on *Strep. lactis* R (Hall) 287, 294
Folic acid in insect growth (Fraenkel & Blewett) xviii
Folic acid in insect nutrition (Fraenkel & Blewett) 469
Folic acid, relationship to histidine (Hall) 299
Formaldehyde action on cystine disulphide linkages of wool (Middlebrook & Phillips) 218
Formaldehyde inhibition of acid phosphatases (Abul-Fadl & King) xxxii
d-Fructopyranose fermentability (Gottschalk) 478

Gastric contents, estimation of peptic activity (Hunt) xxxix, xlii
Gastric mucin, 'virulence-enhancement' factor (Gould & King) xxi
Gastric mucosa, histology (Barrett) 29
Gastric mucosa, metabolism (Lutwak-Mann) 19
§Genetics in microbiological assay (Pontecorvo) xii
Geodin, antibacterial activity (Marcus) 462
Geodin, antibacterial activity (Rinderknecht, Ward, Bergel & Morrison) 463
Geodin, constitution (Calam, Clutterbuck, Oxford & Raistrick) 458
Gliotoxin, antibiotic action (Bracken & Raistrick) 569
Gliotoxin formation by *Penicillium cinerascens* Biourge (Bracken & Raistrick) 569
Glucose oxidation by *Staph. aureus* (Powelson, Wilson & Burris) 486
Glucosuria *see also* Phlorrhizin glucosuria
Glucuronidates in pregnancy urine (Sutherland & Marrian) 193
Glucuronides in urine after *d*-adrenaline (Dodgson, Garton & Williams) 1 *Proc.*
Glucuronides in urine after aminobenzoic acids (Bray, Lake, Neale, Thorpe & Wood) liii
Glucuronides in urine after British anti-lewisite (Spray) 366
Glucuronides in urine after catechol derivatives (Dodgson, Garton & Williams) 1 *Proc.*
Glucuronides in urine after *p*-hydroxybenzylamine and derivatives (Hartles & Williams) li
Glucuronides in urine after synthetic oestrogens (Dodgson, Garton & Williams) xlix
§*d*-Glutamic acid in proteins (Tristram) xxxv
Glutamine micro-estimation (McIlwain, Roper & Hughes) xliii
Glutamine synthesis by streptococci, inhibition (McIlwain, Roper & Hughes) xliii
Glutathione in liver, effect of diet (Leaf & Neuberger) 280, xx
Glycerol oxidation by *Staph. aureus* (Powelson, Wilson & Burris) 486
Glyoxalase stability *in vitro* (Keilin & Wang) 491
Gramicidin S, amino-acid composition (Consden, Gordon, Martin & Synge) 596
*Grey solution, inorganic (Thomson) xlii
§Growth inhibitors, microbiological assay (Knight) i
Growth inhibitors *see also* Antibiotics
Guanidines, antibiotic action (Fuller) 403
Gut, conversion of β-carotene into vitamin A in (Glover, Goodwin & Morton) xlv

Haematin inhibition of succinic dehydrogenase (Keilin & Hartree) 503
Haematin in malarial parasites (Rimington, Fulton & Sheinman) 619
Haemoglobin estimation by cyan-haematin method (King) xxxiii
Haemoglobin formation, tryptophan in (Yeshoda & Damodaran) 382
Haemoglobin stability *in vitro* (Keilin & Wang) 491
Haemolysis by X-rays (Halberstaedter & Leibowitz) 235
Heart, pyruvate oxidation in (Gibson & Long) 230
Heart, activity of cytochrome system (Keilin & Hartree) 500
Heavy metals, inhibition of succinoxidase (Barron & Kalnitsky) 346
Heavy metals, reaction with British anti-lewisite (Webb & van Heyningen) 74
Heavy metals, reaction with dithiols (Barron, Miller & Kalnitsky) 62
Hepatic necrosis, acute, liver protein in (Dent) 314
Hesperidin, dose/response curve (Scarborough & Wokes) xvii
Hexoestrol metabolism (Dodgson, Garton & Williams) xlix
Histidine as essential dietary constituent (Fuller, Neuberger & Webster) 11
Histidine deficiency, effect on muscle carnosine and anserine (Fuller, Neuberger & Webster) 11
Histidine deficiency, general effects (Fuller, Neuberger & Webster) 11
Histidine estimation in urine (Chattaway) 226
Histidine, metabolic degradation (Fuller, Neuberger & Webster) 11
Histidine, relationship to folic acid (Hall) 299
Homogentisic acid estimation (Neuberger) 431
Homogentisic acid formation in alcaptonuria (Neuberger, Rimington & Wilson) 438
Hormones, intercellular, release from damaged cells (Loofbourow, Oppenheim-Errera, Loofbourow & Yeats) 122
Hormones, intercellular, release and synthesis from damaged cells (Webb & Loofbourow) 114
Hormones, intercellular, release and synthesis from damaged cells (Loofbourow) 119
Hyaluronidase in semen (Swyer) 409
Hyaluronidase release from spermatozoa (Swyer) 413
Hyaluronidase, viscosimetric assay (Swyer & Emmens) 29
Hydrogen peroxide formation by spermatozoa (Tosic) xliv
p-Hydroxybenzamide metabolism (Bray, Ryman & Thorpe) 212
p-Hydroxybenzoic acid metabolism (Bray, Ryman & Thorpe) 212
p-Hydroxybenzylacetamide metabolism (Hartles & Williams) li
p-Hydroxybenzylamine metabolism (Hartles & Williams) li
p-Hydroxyhippuric acid in urine (Bray, Ryman & Thorpe) 212
4-Hydroxymetanilamide, absorption spectrum (Williams) 1
4-Hydroxymethyl-2-(3′-amino-4′-hydroxyphenyl)-1:3-dithia-2-arsa*cyclo*pentane *see* Mapharside-BAL compound
Hydroxyorthanilamides in urine after orthanilamide (Stubbs & Williams) xlix
p-Hydroxyphenylpyruvic acid estimation in urine (Painter & Zilva) 520
p-Hydroxyphenylpyruvic acid excretion after tyrosine (Painter & Zilva) 511
p-Hydroxyphenylpyruvic acid, tautomerism (Painter & Zilva) 520
8-Hydroxyquinoline, inactivation of trace metals (Albert & Magrath) 534
3-Hydroxysulphanilamide, absorption spectrum (Williams) 1

3-Hydroxysulphanilamide, antibacterial activity *in vivo* (Williams) 6
3-Hydroxysulphanilamide, bacteriostatic activity *in vitro* (McEntegart) 6
3-Hydroxysulphanilamide colour test (Williams) 1
3-Hydroxysulphanilamide in urine after sulphanilamide (Williams) 1
Hypervitaminosis A, action of vitamin K (Walker, Eylenburg & Moore) 575
Hypochlorite reaction with proteins (Baker) 337

Indole formation by *Escherichia coli* (Dawes, Dawson & Happold) 426
Indole formation from tryptophan (Dawes, Dawson & Happold) 426
Insect growth, arachidonic acid in (Fraenkel & Blewett) xviii
Insect growth, folic acid in (Fraenkel & Blewett) xviii
Insect growth, linoleic acid in (Fraenkel & Blewett) xviii
Insect metabolism, arachidonic acid in (Fraenkel & Blewett) 475
Insect metabolism, linoleic acid in (Fraenkel & Blewett) 475
Insect nutrition, folic acid in (Fraenkel & Blewett) 469
Insect nutrition, unidentified vitamin B factors in (Fraenkel & Blewett) 469
Insects, utilization of nicotinamide derivatives (Ellinger, Fraenkel & Kader) 559
Insulin, action of proteolytic enzymes on (Butler, Dodds, Phillips & Stephen) xxiii
Insulin, destruction by British anti-lewisite (Barron, Miller & Meyer) 78
Intestine *see* Gut
Iodine metabolism in relation to dietary calcium (Simpson) xlv
Iodo-proteins, acid-insoluble fractions in hydrolysates (Simpson, Johnston & Traill) 181
Iodo-proteins, thyroxin in hydrolysates (Simpson, Johnston & Traill) 181
Iron determination (Woiwod) 39
Iron in milk (Woiwod) 39
Iron in protein hydrolysates (Woiwod) 39
Iron porphyrins, destruction by dithiols (Barron, Miller & Kalnitsky) 62

Kerateine, reaction with mustard gas (Peters & Wakelin) 550
Ketosteroids, digitonides (Haslewood) xli
Ketosteroids, precipitation with digitonin (Haslewood) 639
Kidney disease, metabolism of vitamin A (Johns, Hoch & Marrack) liii
Kober reaction for oestrogens, interference (Stevenson & Marrian) 507

Lactic acid oxidation by *Mycobacterium phlei* (Edson) 145
Lanthionine from wool (Middlebrook & Phillips) 218
Lewisite I (β-chlorovinyldichloroarsine) *see below*
Lewisite I, British anti-lewisite as antidote (Graham, Levvy & Chance) 352
Licheniformin, concentration, properties (Callow, Glover & Hart) xxvii
Linoleic acid effect on insect growth (Fraenkel & Blewett) xviii
Linoleic acid in insect metabolism (Fraenkel & Blewett) 475
Lipotropic agents, mode of action (McArthur, Lucas & Best) 612
Lipotropic action of choline (McArthur, Lucas & Best) 612
Liver phosphatase, alkaline (Folley & Greenbaum) 261
Liver arginase (Folley & Greenbaum) 261
Liver glutathione, effect of diet (Leaf & Neuberger) 280, xx
Liver storage of vitamin A (Glover, Goodwin & Morton) 97
Liver damage, tests for (Mawson) xxviii
Liver disease, excretion of *l*(−)-tyrosine (Lawrie) 41
Liver disease, thymol flocculation test (Maclagan) xxxvii
Liver protein, cystine and methionine contents (Dent) 314

Mammals, utilization of nicotinamide derivatives (Ellinger, Fraenkel & Kader) 559
Mammary gland alkaline phosphatase (Folley & Greenbaum) 261
Mammary gland arginase (Folley & Greenbaum) 261
d-Mannose, effect of temperature on fermentation (Gottschalk) 276
Manometers (Barcroft) calibration (Gibson) 44
Mapharside (3-amino-4-hydroxyphenylarsenoxide hydrochloride) *see below*
Mapharside, British anti-lewisite as antidote (Stocken, Thompson & Whittaker) 47
Mapharside-BAL compound [4-hydroxymethyl-2-(3′-amino-4′-hydroxyphenyl)-1:3-dithia-2-arsa*cyclo*pentane] *see below*
Mapharside-BAL compound, preparation, pharmacology (Peters & Stocken) 53
Marfanil *see* Ambamide
Meal worm, arachidonic and linoleic acids in metabolism (Fraenkel & Blewett) 475
Metabolism, action of British anti-lewisite (Barron, Miller & Meyer) 78
Metabolism, action of dithiols (Barron, Miller, Bartlett, Meyer & Singer) 69
Metabolism, action of lewisite (Barron, Miller, Bartlett, Meyer & Singer) 69
Metabolism of gastric mucosa (Lutwak-Mann) 19
Metals *see* Heavy metals; *see also* Trace metals
Methionine in liver protein (Dent) 314
1-Methyl-4-diethyl-β-aminoethylaminothioxanthone *see* Miracil
3-Methylglucose, intestinal absorption (Campbell & Davson) xl
p-Methylsulphonylbenzylamine hydrochloride (V335), metabolism (Hartles & Williams) 206
§Microbiological Assay Symposium i
§Microbiological assay of antibiotics (Knight) i
§Microbiological assay, antitoxins in (Oakley) xv
§Microbiological assay by enzymic antigens (Knight) i
§Microbiological assay by specific enzymes (Knight) i
§Microbiological assay, genetic techniques in (Pontecorvo xii
Microbiological assay of β-alanine (Fuller, Neuberger & Webster) 11
§Microbiological assay of antibiotics (Heatley) xiii
§Microbiological assay of amino-acids (Macrae) x
§Microbiological assay of amino-acids by bacterial enzymes (Gale) vii
§Microbiological assay of B vitamins (Macrae) xi
§Microbiological assay of essential metabolites (Knight) i
§Microbiological assay of growth inhibitors (Knight) i
Microbiological assay of vitamin B_6 complex (Hopkins & Pennington) 110
§Microbiological assay, principles (McIlwain) iii
§Microbiological assay, statistics (Finney) v
Milk, iron in (Woiwod) 39
Miracil (1-methyl-4-diethyl-β-aminoethylaminothioxanthone) *see below*
Miracil, colour test (Coxon, Latner & King) xxx
*Miracil, estimation in biological fluids (Latner, Coxon & King) xxxiv
Miracil, estimation in urine (Coxon, Latner & King) xxx
Mucin, gastric, virulence-enchancement factor (Gould & King) xxi
Mucosa, gastric, histology (Barrett) 29
Mucosa, gastric, metabolism (Lutwak-Mann) 19
Muscle, β-alanine in (Fuller, Neuberger & Webster) 11

Muscle anserine in histidine deficiency (Fuller, Neuberger & Webster) 11
Muscle carnosine in histidine deficiency (Fuller, Neuberger & Webster) 11
Muscle proteins, electrophoresis (Jacob) 83
Mustard gas (β:β'-dichlorodiethylsulphide) *see below*
Mustard gas action on bone marrow (Needham, Cohen & Barrett) 631
Mustard gas action on collagen (Pirie) 185
Mustard gas reaction with kerateine (Peters & Wakelin) 550
Mycobacterium phlei, oxidation of lactic acid (Edson) 145
Mycobacterium phlei, respiration (Edson & Hunter) 139
Myosin-actin reaction, role of SH groups (Bailey & Perry) xxii

Naphthalene metabolism (Young) 417
Naphthalene metabolism (Booth & Boyland) xxix
l-1-Naphthylmercapturic acid formation from naphthalene (Young) 417
Neoarsphenamine (sodium 3:3′-diamino-4:4′-dihydroxy-arsenobenzene-*N*-methylenesulphoxylate) *see below*
Neoarsphenamine, British anti-lewisite as antidote (Stocken, Thompson & Whittaker) 47
Neutral sulphur in urine *see* Urine
Newcastle disease virus, electron micrographs (Elford, Smiles, Chu & Dudgeon) xxv
Nicotinamide derivatives, pharmacology (Ellinger, Fraenkel & Kader) 559
Nicotinamide derivatives, utilization by bacteria (Ellinger, Fraenkel & Kader) 559
Nicotinamide derivatives, utilization by insects (Ellinger, Fraenkel & Kader) 559
Nicotinamide derivatives, utilization by mammals (Ellinger, Fraenkel & Kader) 559
Nicotinamide methochloride metabolism (Ellinger) 308, xix
Ninhydrin estimation of amino-acids by oxidation (Virtanen & Rautanen) 101
Ninhydrin oxidation of amino-acids (Virtanen & Rautanen) 101
Nucleic acids, distribution in bone marrow (Davidson, Leslie & White) xxvi
Nucleosides, release from damaged cells (Loofbourow, Oppenheim-Errera, Loofbourow & Yeats) 122
Nucleotides, absorption spectra (Loofbourow, Oppenheim-Errera, Loofbourow & Yeats) 122
Nucleotides, release from damaged cells (Loofbourow, Oppenheim-Errera, Loofbourow & Yeats) 122

Obituary notice of Freund, Ernst 139
Obituary notice of Gardner, John Addyman 321
Obituary notice of Lloyd, Dorothy Jordan 481
Oestrogens, estimation in pregnancy urine (Stevenson & Marrian) 507
Oestrogens, estimation in urine (Bender & Wilson) 423
Oestrogens, Kober reaction (Stevenson & Marrian) 507
Oestrogens, synthetic, metabolism (Dodgson, Garton & Williams) xlix
Orthanilamide (*o*-aminobenzenesulphonamide) *see below*
Orthanilamide metabolism (Stubbs & Williams) xlix
Oxidase of tea, specificity (Li & Bonner) 105
Oxidase, polyphenol, relationship to tea oxidase (Li & Bonner) 105
Oxine *see* 8-Hydroxyquinoline

Paper partition chromatography for amino-aciduria (Dent) 240
Paper partition chromatography for identification of peptides (Consden, Gordon & Martin) 590
Parasites, malarial, haematin in (identification) (Rimington, Fulton & Sheinman) 619
Penicillium cinerascens Biourge, production of dehydrocarolic acid (Bracken & Raistrick) 569
Pentosan in yeast capsule (Mager) 603
Peptic activity in gastric contents (estimation) (Hunt) xxxix, xlii
Peptides, identification in complex mixtures (Consden, Gordon & Martin) 590
pH of dentine, determination (Pincus & Jackson) xlii
Phenol oxidation by soil bacteria (Evans) 373
Phenylarsenious acid metabolism (Crawford & Levvy) 333
Phenylarsenious acid micro-estimation in mixtures (Crawford) 129
Phenylarsonic acid metabolism (Crawford & Levvy) 333
Phenylarsonic acid micro-estimation in mixtures (Crawford) 129
Phenyldichloroarsine, British anti-lewisite as antidote (Graham, Levvy & Chance) 352
Phlorrhizin effect on phosphorylation (Shapiro) 151
Phlorrhizin glucosuria, mechanism (Shapiro) 151
Phosphatase, acid, inhibition by formaldehyde (Abul-Fadl & King) xxxii
Phosphatase, alkaline, action of alloxan (Burgen & Lorch) 223
Phosphatase, alkaline, action of ureides (Burgen & Lorch) 223
Phosphatase, alkaline, in liver during pregnancy, lactation and mammary involution (Folley & Greenbaum) 261
Phosphatase, alkaline, in mammary gland in pregnancy, lactation and involution (Folley & Greenbaum) 261
Phosphate turnover in brain and pineal (Borell & Örström) 398
Phospholipids, incorporation of triethyl-β-hydroxyethyl-ammonium hydroxide (McArthur, Lucas & Best) 612
Phosphorylation, effect of phlorrhizin (Shapiro) 151
Pineal body phosphate turnover (Borell & Örström) 398
Plasmodium gallinaceum see Parasites, malarial
Plasmodium knowlesi see Parasites, malarial
Plasteins, formation in protein digest (Butler, Dodds, Phillips & Stephen) xxxvii
Polyphenol oxidase, relationship to tea oxidase (Li & Bonner) 105
Polysaccharides of capsulated yeasts (Mager) 603
Polysaccharides in soil (Forsyth) 176
Polysiphonia fastigiata, evolution of dimethyl sulphide (Challenger & Simpson) xl, xlii
Porphyrins, destruction by dithiols (Barron, Miller & Kalnitsky) 62
Porphyrinuria production by oxidized casein (Dent & Rimington) 253
Pregnancy, excretion of *l*(−)-tyrosine (Lawrie) 41
Pregnancy urine, estimation of histidine (Chattaway) 226
Pregnancy urine, estimation of oestrogens (Stevenson & Marrian) 507
Pregnancy urine, pregnanediol estimation (Huber) 609
Pregnanediol estimation in urine (Huber) 609
Pregnane-3(α):20(α)-diol glucuronidate (Na salt), isolation from pregnancy urine (Sutherland & Marrian) 193
Pregnanediol-like glucuronide in urine (Bisset, Brooksbank & Haslewood) xxxviii, xlii
Proteins, electrophoresis, semi-continuous (Bunn) xxiv
Proteins of striated muscle, electrophoresis (Jacob) 83
Proteins, reaction with sodium hypochlorite (Baker) 337
Protein hydrolysates, iron in (Woiwod) 39
Protein synthesis in histidine deficiency (Fuller, Neuberger & Webster) 11
Protein synthesis in rumen, energy sources (McNaught & Smith) xliii
Protocatechuic acid excretion as ethereal sulphate (Dodgson, Garton & Williams) 1 *Proc.*
Protocatechuic acid metabolism (Bray, Ryman & Thorpe) 212

Pseudo-choline-esterase, selective inhibition by di*iso*propyl fluorophosphonate (Mendel & Hawkins) xxii
Pteroylglutamic acid, influence on *Strep. lactis* R (Hall) 294
Pyridoxine deficiency, influence of extraction rate of flour (Richards) xliii
*Pyridoxine deficiency in rats (Richards) xlvi
Pyruvate oxidation, action of arsenicals (Stocken, Thompson & Whittaker) 47
Pyruvate oxidation, action of British anti-lewisite (Stocken, Thompson & Whittaker) 47
Pyruvate oxidation, action of British anti-lewisite (Thompson & Whittaker) 342
Pyruvate oxidation, action of British anti-lewisite (Whittaker) 52
Pyruvate oxidation, action of dithiols (Whittaker) 56
Pyruvate oxidation, action of Sb, Au and Hg compounds (Thompson & Whittaker) 342
Pyruvate oxidation, action of vesicants (Peters & Wakelin) 545
Pyruvate oxidation in ox heart (Gibson & Long) 230

Respiration of *Mycobacterium phlei* (Edson & Hunter) 139
Retinene$_1$, conversion to vitamin A (Ball, Glover, Goodwin & Morton) xxiv
Retinene$_2$, conversion to vitamin A$_2$ (Morton, Salah & Stubbs) xxiv
*Rumen, decomposition of cellulose in (Baker & Harriss) xlvi
Rumen, energy sources for protein synthesis in (McNaught & Smith) xliii

Salicylate therapy (children) (Maggioni) lii
Semen, hyaluronidase content (Swyer) 409
Serum proteins, flocculation tests (Maclagan & Bunn) 580
Serum proteins, flocculation tests (Maclagan & Bunn) xix
SH-enzymes, inhibition by arsenicals (Barron, Miller, Bartlett, Meyer & Singer) 69
SH groups in myosin-actin interaction (Bailey & Perry) xxii
Skin, action of arsenical vesicants (Graham, Levvy & Chance) 352
Skin, protection against vesicants by British anti-lewisite (Graham, Levvy & Chance) 352
Soil bacteria, oxidation of phenol and benzoic acid (Evans) 373
Soil organic matter, fractionation of soluble complexes (Forsyth) 176
Spermatozoa, formation of hydrogen peroxide (Tosic) xliv
Spermatozoa, release of hyaluronidase from (Swyer) 413
Spinulosin, antibiotic action (Bracken & Raistrick) 569
Spinulosin formation by *Penicillium cinerascens* Biourge (Bracken & Raistrick) 569
Staphylococcus oxidation of glucose, glycerol and acetate (Powelson, Wilson & Burris) 486
Staphylococcus 'K' bacteriophage, electron micrographs (Elford, Smiles, Chu & Dudgeon) xxv
Starch in yeast capsule (Mager) 603
Steroid ketone digitonides (Haslewood) xli
Steroid ketone precipitation with digitonin (Haslewood) 639
Stilboestrol metabolism (Dodgson, Garton & Williams) xlix
Succinic dehydrogenase, effect of haematin on activity (Keilin & Hartree) 503
Succinic dehydrogenase, reaction with haematin (Keilin & Hartree) 503
Succinoxidase (liver), effect of diet (Elson) xxi
Succinoxidase (liver), inhibition by carcinogenic compounds (Elson) xxi
Succinoxidase (muscle), activation by dithiols (Barron & Kalnitsky) 346
Succinoxidase (muscle), inhibition by heavy metals (Barron & Kalnitsky) 346
Sucrose fermentation by *Aerobacter aerogenes* (Freeman) 389
Sulphanilamide, 3-hydroxysulphanilamide from (Williams) 1
Sulphanilamide metabolism (Williams) 1
Sulphanilamide, theories of action (Williams) 1
Sulphate, ethereal, in urine *see* Urine
Sulphate, inorganic, in urine *see* Urine
Sulphites, action on cystine disulphide linkages of wool (Lindley & Phillips) 34
Sulphonamides, acetylation *in vivo* (Krebs, Sykes & Bartley) 622
Sulphonamides, 3-hydroxysulphanilamide from (Williams) 1
Sulphonamides, metabolism (ambamide and V 335) (Hartles & Williams) 206
Sulphonamides, metabolism (orthanilamide) (Stubbs & Williams) xlix
Sulphonamides, metabolism (sulphanilamide) (Williams) 1
Sulphur, neutral, in urine *see* Urine
Sulphur, radioactive, in urine after radioactive British anti-lewisite (Peters, Spray, Stocken, Collie, Grace & Wheatley) 370
§Symposium on microbiological assay i
§Symposium on optical form and biological activity in amino-acids xxxiv

Tea oxidase, relationship to polyphenol oxidase (Li & Bonner) 105
Tenebrio molitor, *see* Meal worm
Thiamine *see* Vitamin B$_1$
Thiazolidine-4-carboxylic acid from wool (Middlebrook & Phillips) 218
Thio-ethers, decomposition by silver salts (Peters & Wakelin) 555
Thymol flocculation test (Maclagan) xxxvii
Thyroxine, 3:5-diiodo-4-hydroxybenzaldehyde in formation (Rivers) xxxix
Thyroxine in iodo-protein hydrolysates (Simpson, Johnston & Traill) 181
*Tissue culture method for testing synthetic media (Darke & Jacoby) liv
Tissue slices, toxicity of arsenite (Hughes & Levvy) 8
Tissue slices, toxicity of arsine (Hughes & Levvy) 8
Trace metals, inactivation by chelating agents (Albert & Gledhill) 529
Trace metals, inactivation by 8-hydroxyquinoline and derivatives (Albert & Magrath) 534
Triethyl-β-hydroxyethylammonium hydroxide, incorporation into phospholipids (McArthur, Lucas & Best) 612
Triketohydrindene *see* Ninhydrin
Tryptophan in haemoglobin formation (Yeshoda & Damodaran) 382
Tryptophan in indole formation (Dawes, Dawson & Happold) 426
Tryptophanase complex, nature of (Dawes, Dawson & Happold) xlviii
l-Tyrosine, influence of ascorbic acid (Painter & Zilva) 511
l(−)-Tyrosine excretion in urine (Lawrie) 41

Ureides, diabetogenic, action on alkaline phosphatase (Burgen & Lorch) 223
Urethane estimation in blood (Archer, Chapman, Rhoden & Warren) xxxi
Urine, *N*-acetamidobenzamides after aminobenzamides (Bray, Lake, Neale, Thorpe & Wood) liii
Urine, amino-acids in Fanconi syndrome (Dent) 240
Urine, 4-carbamylphenylglucuronide (Bray, Ryman & Thorpe) 212
Urine, *p*-carboxybenzenesulphonamide after ambamide (Hartles & Williams) 206
Urine, creatine (Maw) 482

Urine, creatinine (Maw) 482
Urine, creatinine (estimation) (Barclay & Kenney) 586
Urine, 1:2-dihydronaphthalene-1:2-diol after naphthalene (Young) 417
Urine, ethereal sulphate after *d*-adrenaline (Dodgson, Garton & Williams) 1 *Proc.*
Urine, ethereal sulphate after British anti-lewisite (Spray) 366
Urine, ethereal sulphates after catechol (Dodgson, Garton & Williams) 1 *Proc.*
Urine, ethereal sulphates after *p*-hydroxybenzylamine and derivatives (Hartles & Williams) li
Urine, ethereal sulphates after protocatechuic acid (Dodgson, Garton & Williams) 1 *Proc.*
Urine, glucuronidates during pregnancy (Sutherland & Marrian) 193
Urine, glucuronide after *d*-adrenaline (Dodgson, Garton & Williams) 1 *Proc.*
Urine, glucuronides after aminobenzoic acids (Bray, Lake, Neale, Thorpe & Wood) liii
Urine, glucuronides after British anti-lewisite (Spray) 366
Urine, glucuronides after *p*-hydroxybenzylamine and derivatives (Hartles & Williams) li
Urine, glucuronides after synthetic oestrogens (Dodgson, Garton & Williams) xlix
Urine, histidine (estimation) (Chattaway) 226
Urine, homogentisic acid (Neuberger, Rimington & Wilson) 438
Urine, homogentisic acid (estimation) (Neuberger) 431
Urine, *p*-hydroxyhippuric acid (Bray, Ryman & Thorpe) 212
Urine, hydroxyorthanilamides after orthanilamide (Stubbs & Williams) xlix
Urine, *p*-hydroxyphenylpyruvic acid (estimation) (Painter & Zilva) 520
Urine, *p*-hydroxyphenylpyruvic acid after tyrosine (Painter & Zilva) 511
Urine, 3-hydroxysulphanilamide after sulphanilamide (Williams) 1
Urine, inorganic sulphate after British anti-lewisite (Spray) 366
Urine, *p*-methylsulphonylbenzoic acid after V 335 (Hartles & Williams) 206
Urine, micro-estimation of certain arsenicals (Crawford) 129
Urine, miracil estimation (Coxon, Latner & King) xxx
Urine, *l*-1-naphthylmercapturic acid after naphthalene (Young) 417
Urine, neutral sulphur after British anti-lewisite (Spray) 366
Urine, neutral sulphur after radioactive British anti-lewisite (Peters, Spray, Stocken, Collie, Grace & Wheatley) 370
Urine, oestrogens, chemical estimation (Bender & Wilson) 423
Urine, oestrogens during pregnancy (estimation) (Stevenson & Marrian) 507
Urine, pregnanediol (estimation) (Huber) 609
Urine, pregnanediol-like glucuronide (estimation) (Bisset, Brooksbank & Haslewood) xxxviii, xlii
Urine, thiols after British anti-lewisite (Spray, Stocken & Thompson) 362
Urine, *l*(−)-tyrosine (Lawrie) 41
Urine, vitamin A (Johns, Hoch & Marrack) liii
Urine *see also* Pregnancy urine
Uronic acids in soil (Forsyth) 176

V 335 *see p*-Methylsulphonylbenzylamine hydrochloride
Vaccinia virus, electron micrographs (Elford, Smiles, Chu & Dudgeon) xxv
van den Bergh reaction (Gray & Whidborne) 155
Vesicants, arsenical, *see* Arsenical vesicants
Vesicants, potentiation of toxicity by dithio-compounds (Peters & Wakelin) 545
'Virulence-enhancement' factor of gastric mucin (Gould & King) xxi
Virus, Newcastle disease, electron micrographs (Elford, Smiles, Chu & Dudgeon) xxv
Virus, vaccinia, electron micrographs (Elford, Smiles, Chu & Dudgeon) xxv
Viscosimetric assay of hyaluronidase (Swyer & Emmens) 29
Vitamin A, absorption spectrum (Morton & Stubbs) 525
Vitamin A, chromatographic separation from its esters (Glover, Goodwin & Morton) 94
Vitamin A esters, separation from free vitamin A (Glover, Goodwin & Morton) 94
Vitamin A formation from β-carotene in gut (Glover, Goodwin & Morton) xlv
Vitamin A formation from retinene$_1$ (Ball, Glover, Goodwin & Morton) xxiv
Vitamin A in blood (Glover, Goodwin & Morton) 97
Vitamin A in urine (kidney disease) (Johns, Hoch & Marrack) liii
Vitamin A metabolism in kidney disease (Johns, Hoch & Marrack) liii
Vitamin A, spectrophotometric assay (Morton & Stubbs) 525
Vitamin A storage in liver (Glover, Goodwin & Morton) 97
Vitamin A_2 formation from retinene$_2$ (Morton, Salah & Stubbs) xxiv
Vitamin B_1, influence of buffer salts on thermal destruction (Farrer) 167
Vitamin B_1, influence of copper on thermal destruction (Farrer) 162
§Vitamin B complex, microbiological assay (Macrae) xi
Vitamin B complex, unidentified factors in insect nutrition (Fraenkel & Blewett) 469
Vitamin B complex, release and synthesis by damaged cells (Webb & Loufbourow) 114
Vitamin B_6 complex, assay (Hopkins & Pennington) 110
Vitamin C, seasonal variations in diet (Glazebrook, Scarborough & Wokes) xxv
Vitamin C *see* Ascorbic acid
Vitamin K action in hypervitaminosis A (Walker, Eylenburg & Moore) 575
Vitamin P, clinical assay (Scarborough & Wokes) xvii, xxv
Vitamin P, clinical assay in rose hips (Scarborough & Wokes) xxxviii
Vitamin P, seasonal variations in diet (Glazebrook, Scarborough & Wokes) xxv

Wool, cystine disulphide linkages, action of formaldehyde (Middlebrook & Phillips) 218
Wool, cystine disulphide linkages, action of sulphites (Lindley & Phillips) 34
Wool, djenkolic acid from (Middlebrook & Phillips) 218
Wool, lanthionine from (Middlebrook & Phillips) 218
Wool, thiazolidine-4-carboxylic acid from (Middlebrook & Phillips) 218

Yeast, amino-acid composition (Freeland & Gale) 135
Yeast, fermentation of *d*-mannose, effect of temperature (Gottschalk) 276
Yeasts, capsulated, polysaccharides (Mager) 603

X-rays, action on erythrocytes (Halberstaedter & Leibowitz) 235